DigiKeyer II and N1MM Logger Setup

Router setup:

Note: The specific port numbers are not important. The key is consistency - the same port number must be used for a specific function in both Router and the logger.

1. Assign a virtual COM port for radio control (CAT). Click the **Set** button, select the transceiver from the drop down box, set the Baud Rate and CI-V address if needed.

2. Assign PTT to the same port as you used for CAT and select the RTS line.

3. Assign a port for WinKey.

4. Assign a port for FSK and check the PTT box. If you will not be using FSK, you can skip this step.
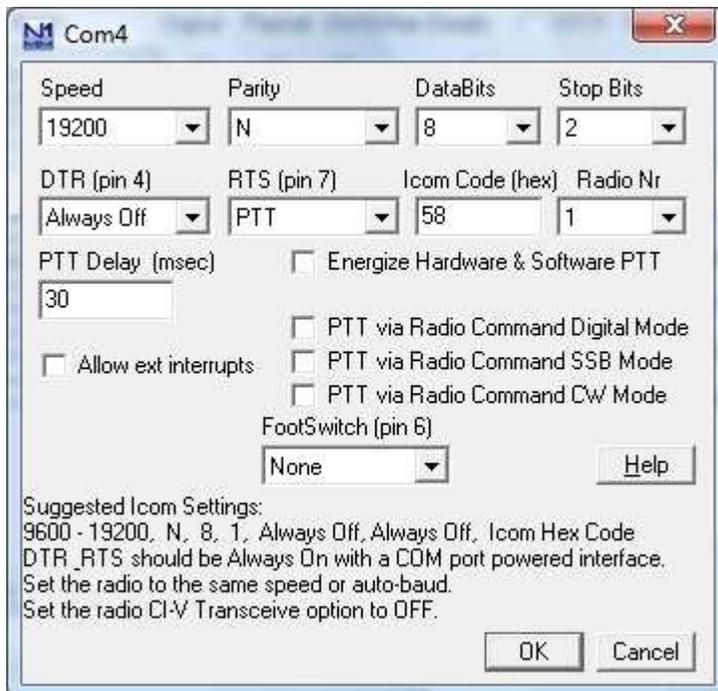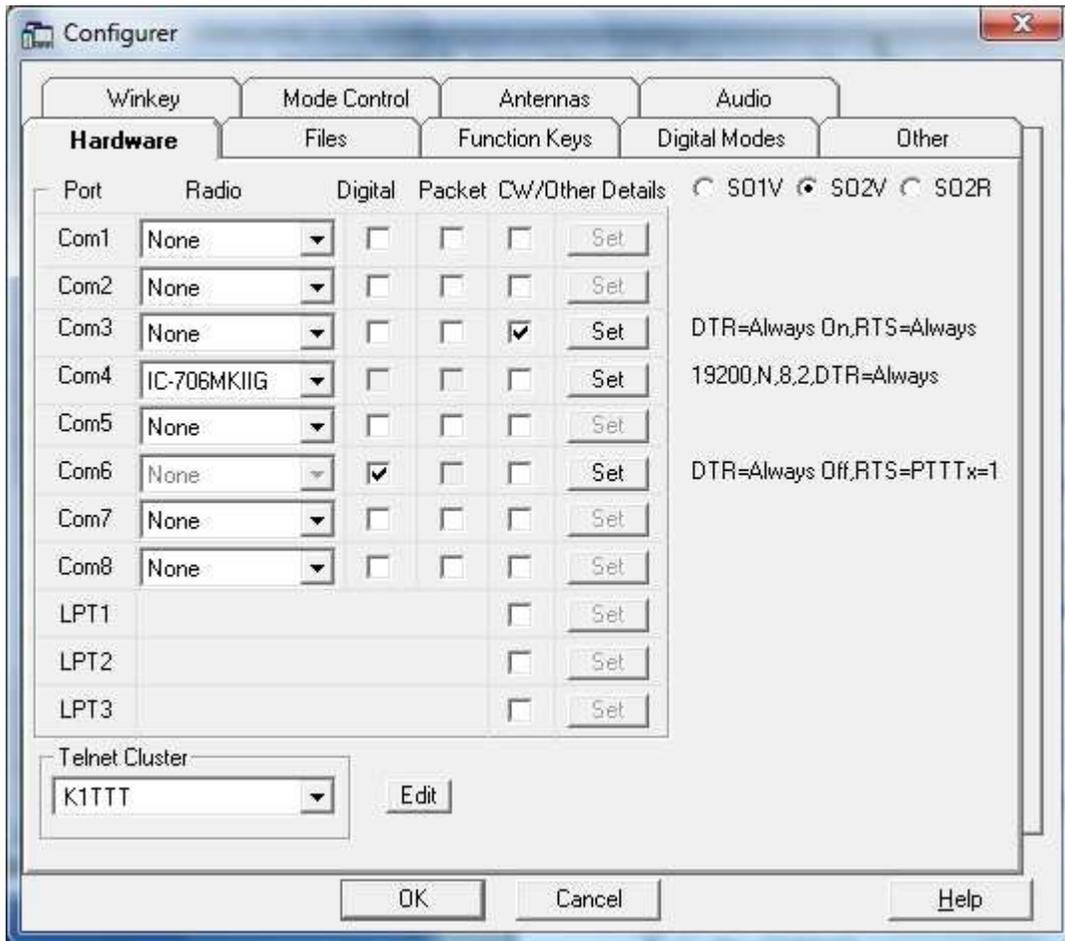

5. Save settings to a preset by selecting menu **Preset | Save as.** Choose a position and name it N1MM.

N1MM setup:

1. Click **Config| Configure Ports, Telent Addresses, Other ...**

2. Assign the radio to the virtual COM port you created for CAT in Router's Ports tab

3. Assign Digital (FSK and 2nd FSK) to the virtual ports you created in Router.

4. On the radio port, click **Set** and set proper communication parameters for your transceiver.

5. Set RTS (pin 7) to PTT.

6. Set DTR (Pin 4) to Always Off.

7. **Uncheck** "Energize Hardware & Software PTT"

8. **DO NOT** check any of the "PTT via Radio Command" options.

9. Click **Set** for the Digital port(s) .

10. Configure the Digital ports taking care to associate each port with the correct Radio or receiver (Radio Nr) and Digital Interface (Dig Wind Nr) depending on whether your transceiver supports SO2V (dual receiver) operation.

Com3

DTR (pin 4): Always On
RTS (pin 7): Always Off
Radio/VFO: Both

PTT Delay (msec): 10

☐ Allow ext interrupts
☑ WinKey

CW/PTT Port Addr: 3E8   Help

Suggested Settings:
Icom: 1200, N, 8, 1, Always on, Always on, Hex Code
Yaesu: 4800, N, 8, 2, Always on, Always on
Kenwood: 4800, N, 8, 2, Handshake, Handshake
TT Orion: 57600, N, 8, 1, Handshake, Handshake

OK   Cancel

Com6

DTR (pin 4): Always Off
RTS (pin 7): PTT
Radio Nr: 1

PTT Delay (msec): 30
Dig Wnd Nr: 0=None 1

☐ Allow ext interrupts
☐ WinKey
Two Radio Protocol: None
FootSwitch (pin 6): None
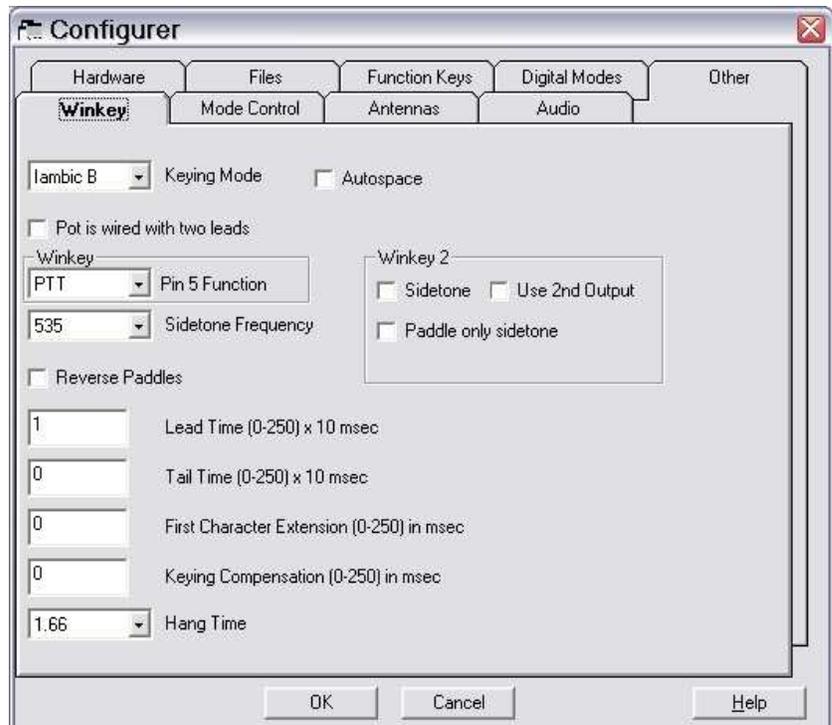CW/PTT Port Addr: 3E0   Help

OK   Cancel

11. For the CW Port click **Set** and check the **WinKey** box.

12. Set Radio/VFO to **Both**.

13. Configure WinKey using the WinKey tab.

14. Pin 5 Function should be PTT unless you are using QSK

Note: Timing parameters are set on the CW/WinKey tab in Router. Router will override application settings.

15. Click OK to close the N1MM Logger Hardware configuration dialog.

Note: DigiKeyer II does not support DVK operation. There is nothing to configure on the Audio Tab.

Configurer

Tabs: Hardware | Files | Function Keys | Digital Modes | Other
WinKey | Mode Control | Antennas | Audio

Iambic B — Keying Mode   ☐ Autospace

☐ Pot is wired with two leads

Winkey
PTT — Pin 5 Function
535 — Sidetone Frequency

Winkey 2
☐ Sidetone   ☐ Use 2nd Output
☐ Paddle only sidetone

☐ Reverse Paddles

1   Lead Time (0-250) x 10 msec
0   Tail Time (0-250) x 10 msec
0   First Character Extension (0-250) in msec
0   Keying Compensation (0-250) in msec
1.66 — Hang Time

OK   Cancel   Help

MMTTY setup (FSK):

N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is based on using MMTTY in FSK mode.
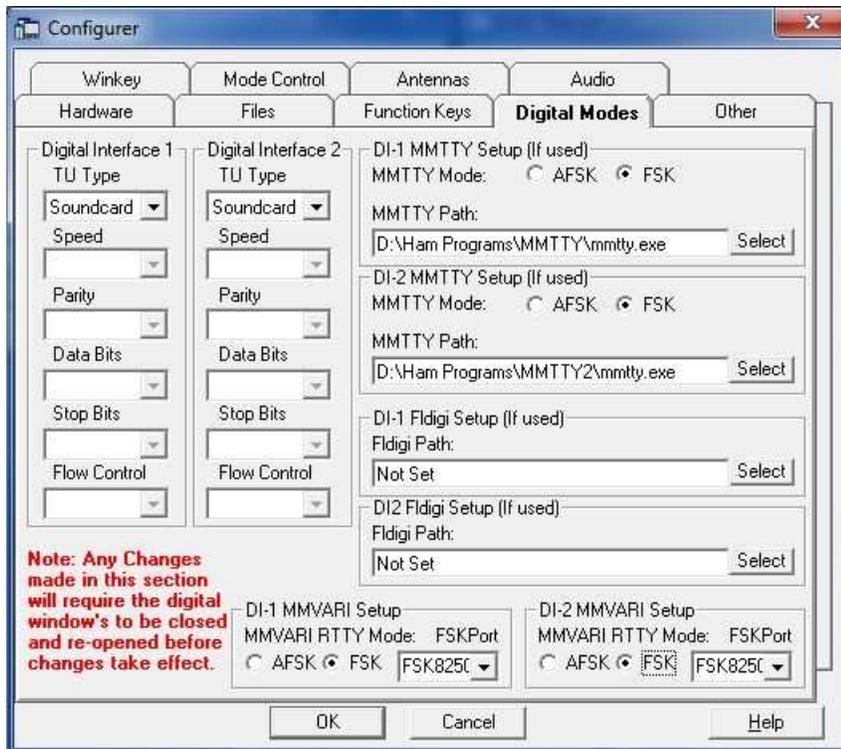

1. Install MMTTY.

   Note: If your radio supports dual receiver (SO2V) operation, you may want to install MMTTY to two *different* directories on your hard disk.

2. Select the **Digital Modes** tab in the N1MM Logger Configurer.

3. Set TU Type to Soundcard

4. Select FSK as the MMTTY mode for DI-1 and DI-2.

5. Enter the path to each MMTTY installation.

6. Open the **Mode Control** tab

7. Set the appropriate RTTY and PSK modes for your radio.

   Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.

8. Set the method to determine the mode to log.

9. Click "OK" to save the settings and close the Configurer.
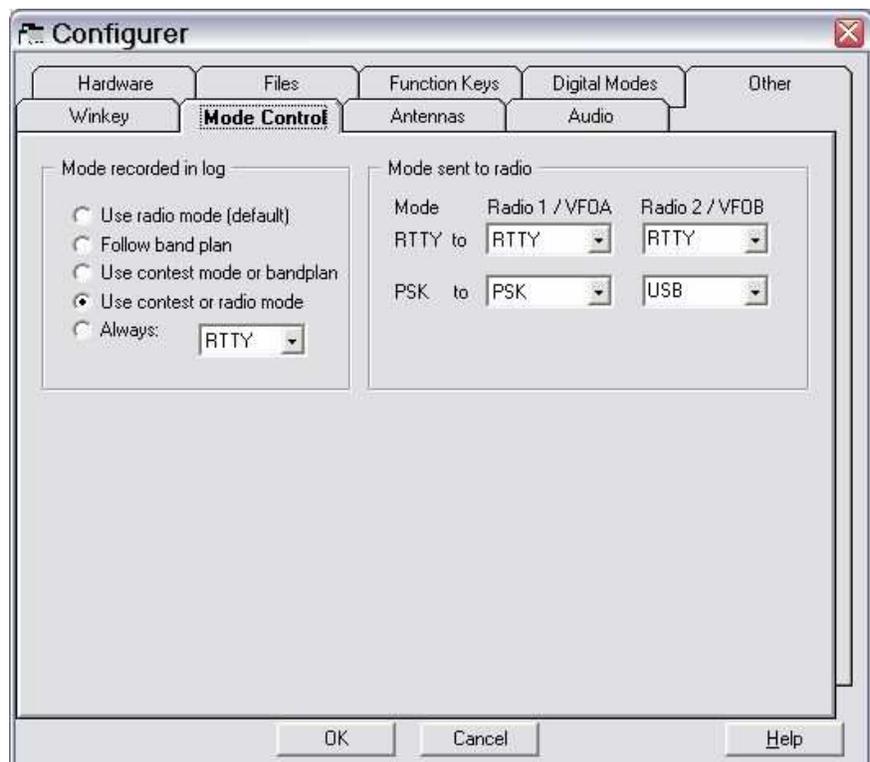
10. Activate the left Entry Window (Radio 1) and open the Digital Interface.

11. If this is the first time you have used the MMTTY interface, click on **Interface | MMTTY** to activate the MMTTY interface.

12. In the Digital Interface, Click **Setup | Setup MMTTY.**
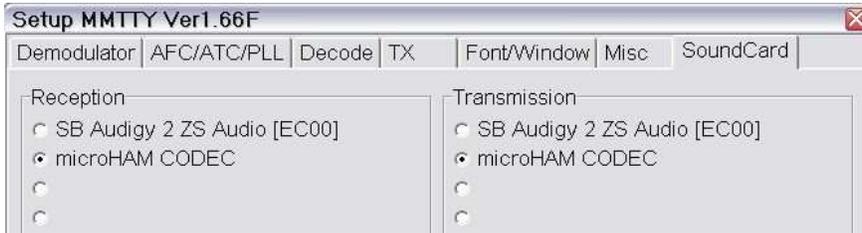
13. Select the "SoundCard" tab.

14. Select microHAM CODEC for Transmission and Reception.

15. Select the TX tab

16. Set PTT & FSK to the port used for Router's FSK port.

17. Select the Misc Tab
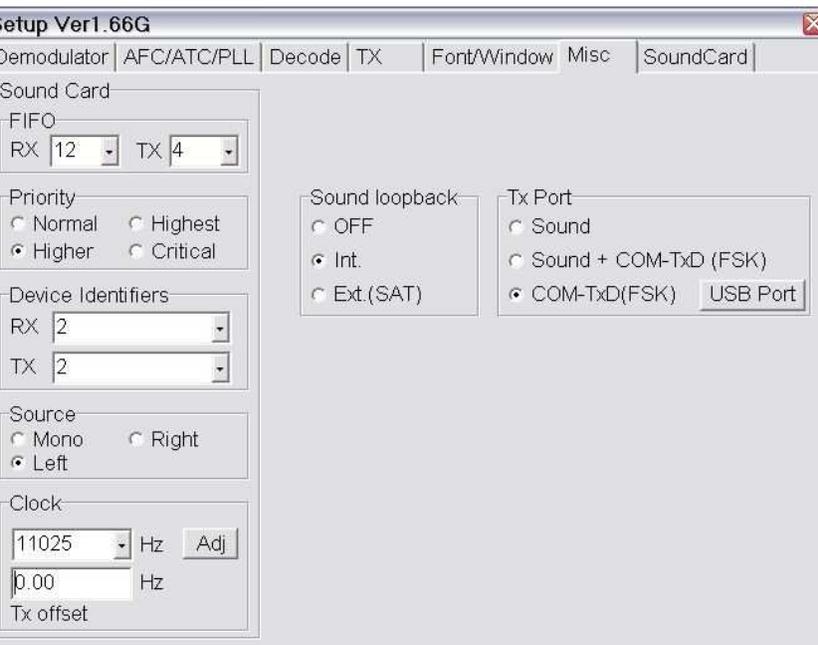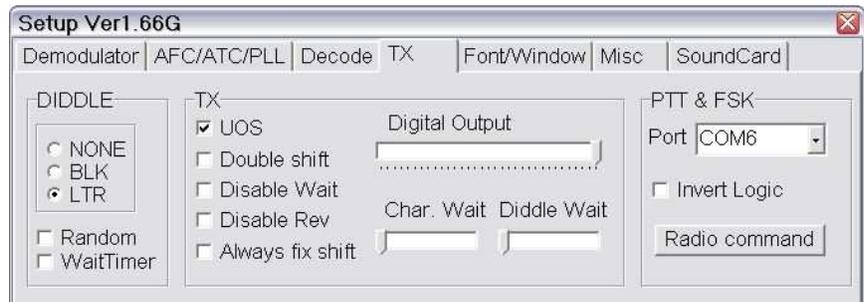
18. Select **Source = Left**

19. Set Tx Port to COM-TxD(FSK)

20. Click **USB port** button, choose **C: Limiting speed** and click OK

21. Click "OK" on the Misc tab to close the MMTTY Set-up for Radio 1

   If your radio does not support Dual receive (SO2V) Operation, FSK configuration is complete.

22. Activate the right Entry Window (Radio 2) and open the Digital Interface.

23. Click on **Interface | MMTTY** to activate the MMTTY interface.

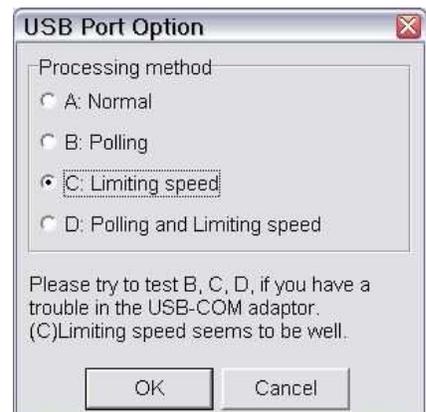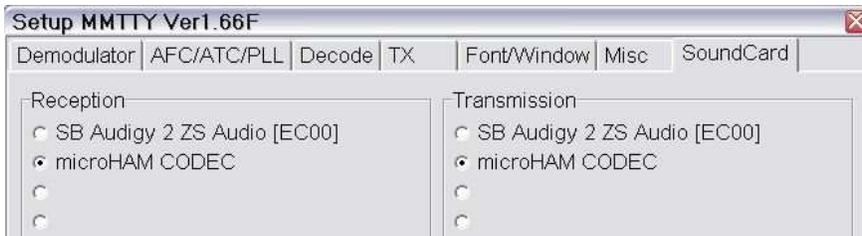24. In the Digital Interface, Click **Setup | Setup MMTTY.**

Setup MMTTY Ver1.66F

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

Reception
- ○ SB Audigy 2 ZS Audio [EC00]
- ● microHAM CODEC
- ○
- ○

Transmission
- ○ SB Audigy 2 ZS Audio [EC00]
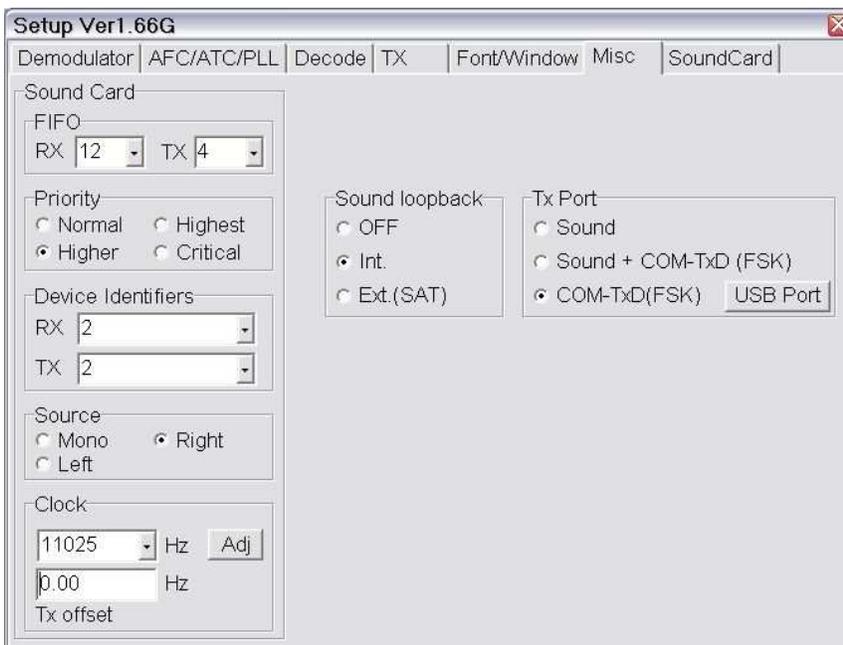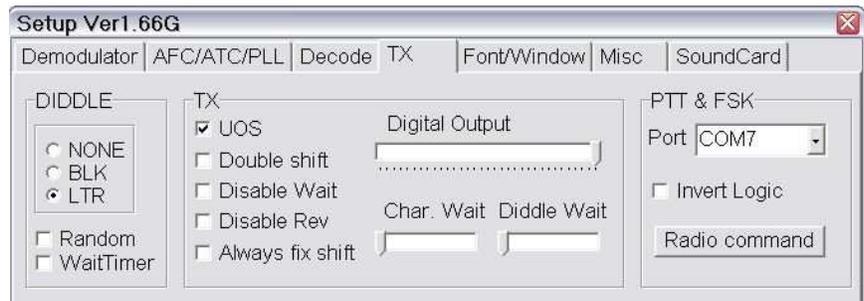- ● microHAM CODEC
- ○
- ○

25. Select the "SoundCard" tab.

26. Select microHAM CODEC for both Transmission and Reception.

27. Select the TX tab

28. Set PTT & FSK to Router's 2nd FSK Port.

29. Select the Misc Tab

Setup Ver1.66G

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

DIDDLE
- ○ NONE
- ○ BLK
- ● LTR
- ☐ Random
- ☐ WaitTimer

TX
- ☑ UOS
- ☐ Double shift
- ☐ Disable Wait
- ☐ Disable Rev
- ☐ Always fix shift

Digital Output
....

Char. Wait   Diddle Wait

PTT & FSK
Port COM7 ▼
☐ Invert Logic
Radio command

Setup Ver1.66G

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

Sound Card
FIFO
RX 12 ▼ TX 4 ▼

Priority
- ○ Normal ○ Highest
- ● Higher ○ Critical

Device Identifiers
RX 2 ▼
TX 2 ▼

Source
- ○ Mono ● Right
- ○ Left

Clock
11025 ▼ Hz Adj
0.00   Hz
Tx offset

Sound loopback
- ○ OFF
- ● Int.
- ○ Ext.(SAT)

Tx Port
- ○ Sound
- ○ Sound + COM-TxD (FSK)
- ● COM-TxD(FSK) USB Port

30. Select **Source = Right**

31. Set Tx Port to COM-TxD(FSK)

USB Port Option

Processing method
- ○ A: Normal
- ○ B: Polling
- ● C: Limiting speed
- ○ D: Polling and Limiting speed

Please try to test B, C, D, if you have a trouble in the USB-COM adaptor.
(C)Limiting speed seems to be well.

OK   Cancel

32. Click **USB port** button, choose **C: Limiting speed** and click OK

33. Click "OK" on the Misc tab to close the MMTTY Set-up for Radio 1
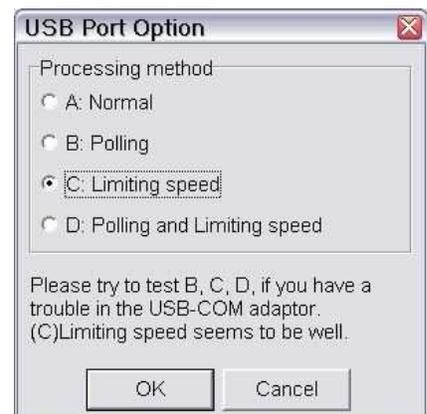
MMTTY setup (AFSK):

N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is based on using MMTTY in AFSK mode.

AFSK does not require a digital port for each radio. If you will be using only AFSK and PSK, it is not necessary to define "Digital" ports on the N1MM "Hardware" tab or FSK ports in Router.
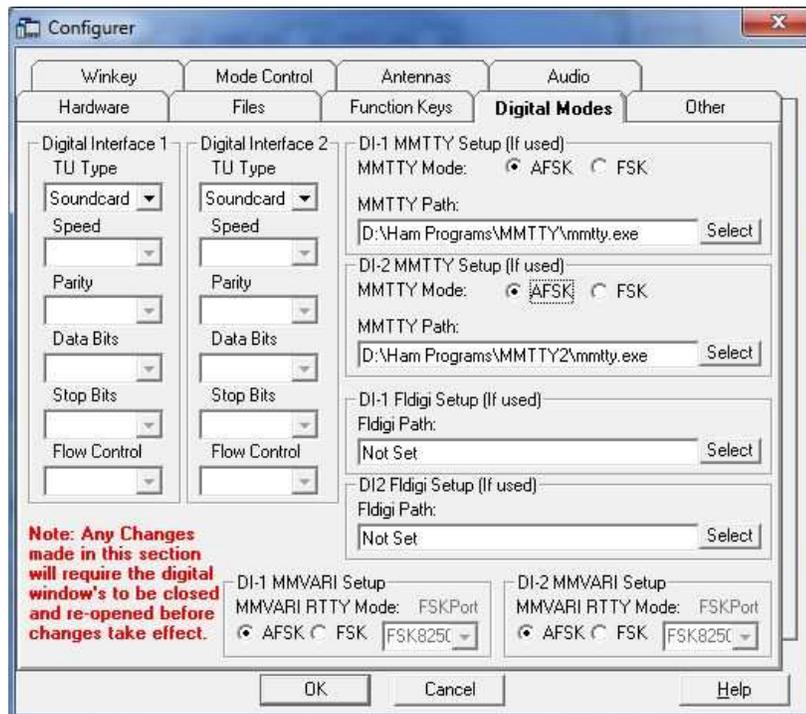

1. Install MMTTY.

   Note: If your radio supports dual receiver (SO2V) operation, you may want to install MMTTY to two _different_ directories on your hard disk.

2. Select the **Digital Modes** tab in the N1MM Logger Configurer.

3. Set the TU Type to Soundcard

4. select AFSK as the MMTTY mode for both DI-1 and DI-2.

5. Enter the path to each copy of MMTTY.

6. Open the **Mode Control** tab

7. Set the appropriate RTTY and PSK modes for each radio.

   Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.

8. Set the method to determine the mode recorded in the log.

9. Save and Close the Configurer.
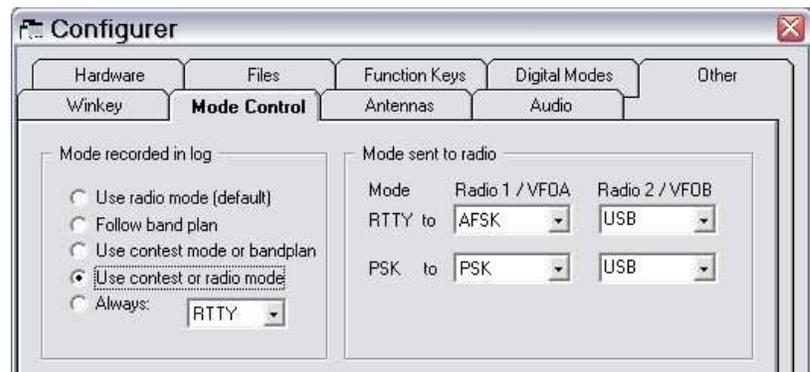
10. Activate the left Entry Window (Radio 1) and open the Digital Interface.

11. If this is the first time you have used the MMTTY interface, click on **Interface | MMTTY** to activate the MMTTY interface.
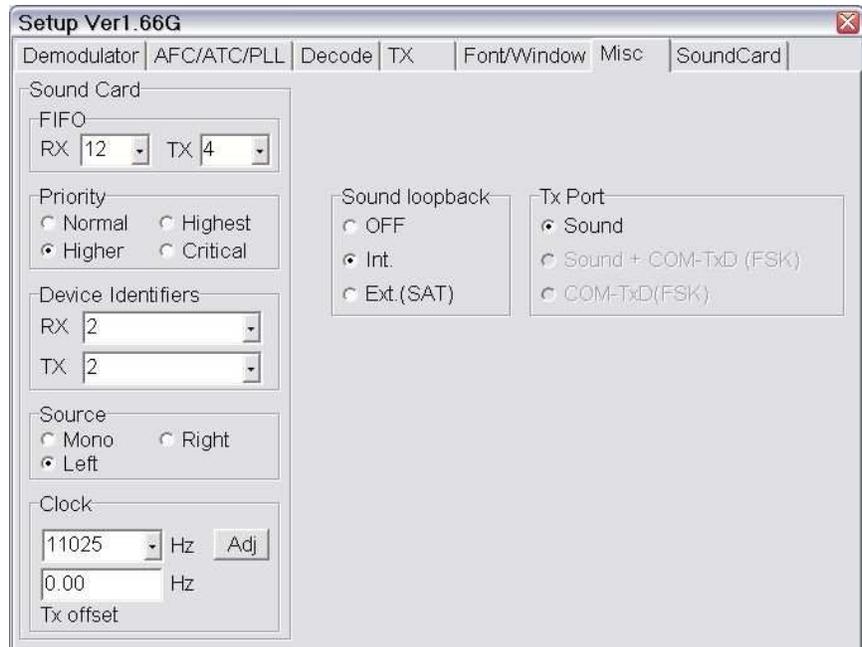

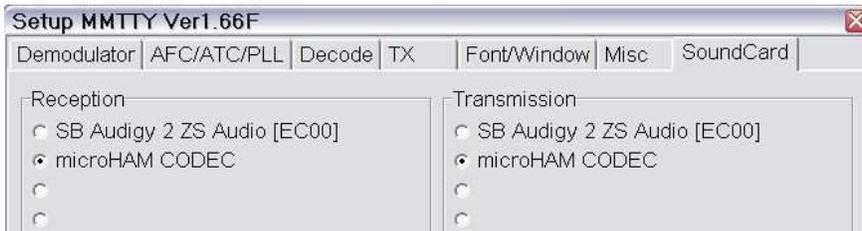12. In the Digital Interface, Click **Setup | Setup MMTTY.**

13. Select the "SoundCard" tab.

14. Select microHAM CODEC for both Transmission and Reception.

15. Select the Misc Tab

16. Select **Source = Left**

17. Set Tx Port to **Sound**.
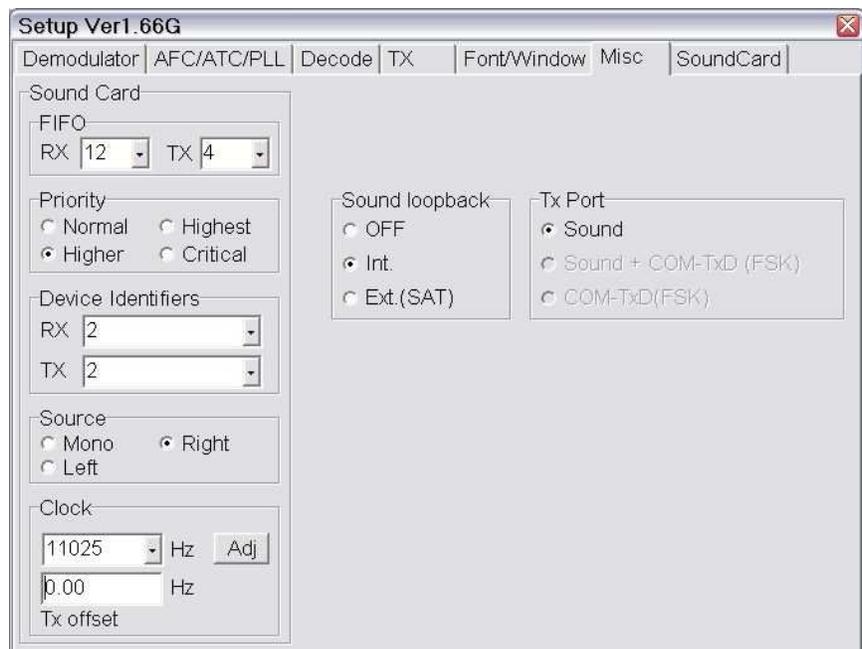
18. Click "OK" to close MMTTY Set-up for Radio 1

Setup Ver1.66G

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

Sound Card

FIFO
RX 12 ▾ TX 4 ▾

Priority
○ Normal ○ Highest
● Higher ○ Critical

Device Identifiers
RX 2 ▾
TX 2 ▾

Source
○ Mono ○ Right
● Left

Clock
11025 ▾ Hz [Adj]
0.00 Hz
Tx offset

Sound loopback
○ OFF
● Int.
○ Ext.(SAT)

Tx Port
● Sound
○ Sound + COM-TxD (FSK)
○ COM-TxD(FSK)

19. Activate the right Entry Window (Radio 2) and open the Digital Interface.

20. Click on **Interface | MMTTY** to activate the MMTTY interface.

Setup MMTTY Ver1.66F

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

Reception
○ SB Audigy 2 ZS Audio [EC00]
● microHAM CODEC
○
○

Transmission
○ SB Audigy 2 ZS Audio [EC00]
● microHAM CODEC
○
○

21. In the Digital Interface, Click **Setup | Setup MMTTY.**

22. Select the "SoundCard" tab.

23. Select microHAM CODEC for both Transmission and Reception.

24. Select the Misc Tab

25. Select **Source = Right**

26. Set Tx Port to **Sound**

27. Click "OK" to close MMTTY Setup for Radio 2.

Setup Ver1.66G

Demodulator | AFC/ATC/PLL | Decode | TX | Font/Window | Misc | SoundCard

Sound Card

FIFO
RX 12 ▾ TX 4 ▾

Priority
○ Normal ○ Highest
● Higher ○ Critical

Device Identifiers
RX 2 ▾
TX 2 ▾

Source
○ Mono ● Right
○ Left

Clock
11025 ▾ Hz [Adj]
0.00 Hz
Tx offset

Sound loopback
○ OFF
● Int.
○ Ext.(SAT)

Tx Port
● Sound
○ Sound + COM-TxD (FSK)
○ COM-TxD(FSK)

MMVARI Setup with FSK:

N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is for **FSK RTTY** and PSK.

FSK requires use of a digital port for each radio. Be sure you have defined Digital ports for each radio in the N1MM "Hardware" tab and FSK ports in Router.
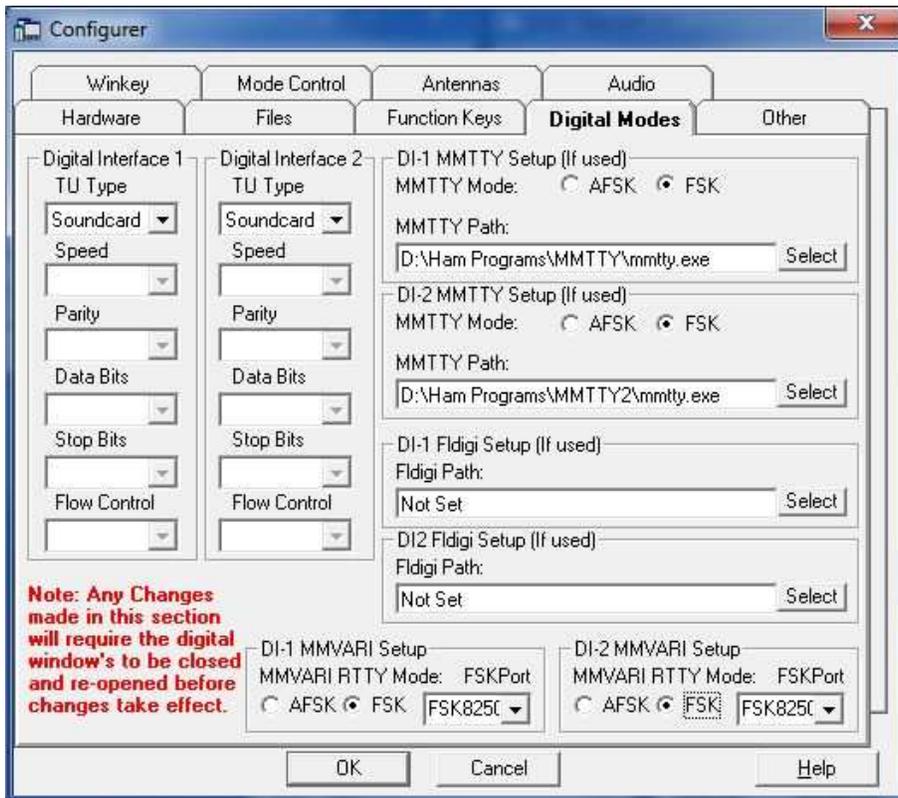

1. Select the **Digital Modes** tab in the N1MM Logger Configurer.

2. Set the TU Type to Soundcard

3. select FSK as the MMVARI RTTY mode for both DI-1 and DI-2.

4. Set the FSK Port to FSK8250 for both DI-1 and DI-2

5. Open the **Mode Control** tab

6. Set the appropriate RTTY and PSK modes for each radio.

    Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.

7. Set the method to determine the mode recorded in the log.

8. Save and Close the N1MM Configurer.
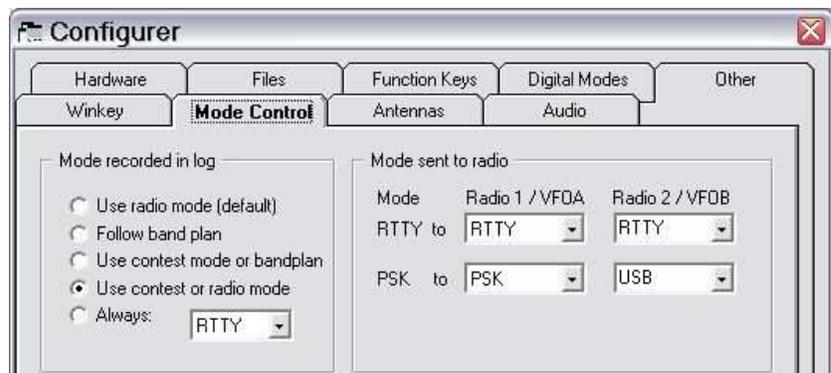
9. Activate the left Entry Window (Radio 1) and enter PSK.

10. Click **Setup | Settings.** Select MMVARI as the Preferred RTTY Interface and Preferred PSK Interface.
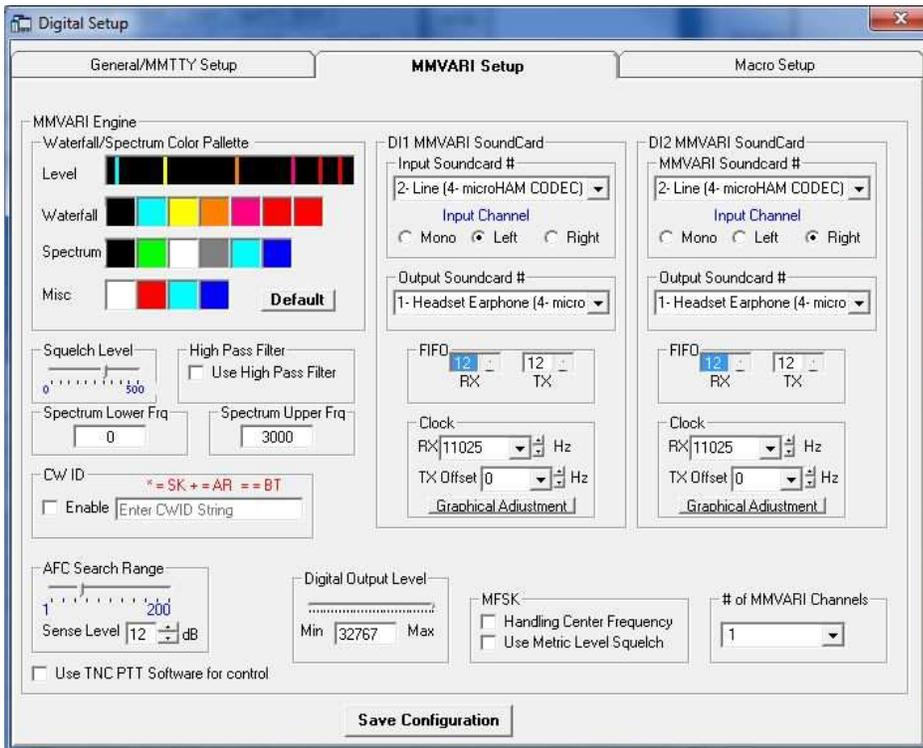
11. Select **MMVARI Setup.**

12. Set DI1 MMVARI Sound Card Input Soundcard # to "Line (microHAM CODEC)" and select the **Left** Input.

13. Set DI1 MMVARI Sound Card Output Soundcard # to "Headset Earphone (microHAM CODEC)".

14. Set DI2 MMVARI Sound Card Input Soundcard # to "Line (microHAM CODEC)" and select the **Right** input.

15. Set DI1 MMVARI Sound Card Output Soundcard # to "Headset Earphone (microHAM CODEC)"

16. Save the configuration.
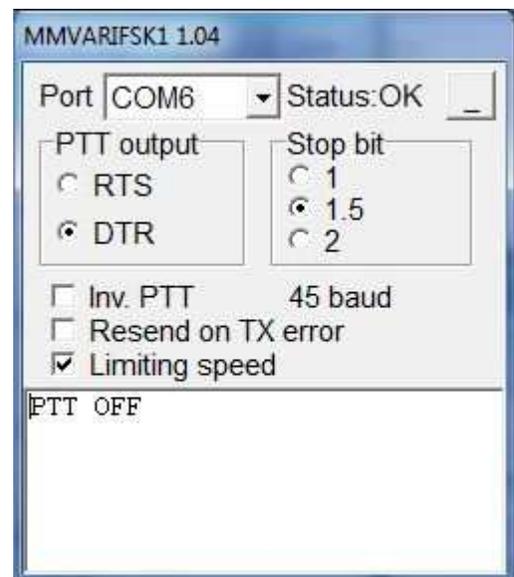
17. Select RTTY-L mode in MMVARI in DI-1

18. Select the MMVARIFSK1 window from the Windows Task Bar.

19. Set Port to the port you chose for FSK in Router
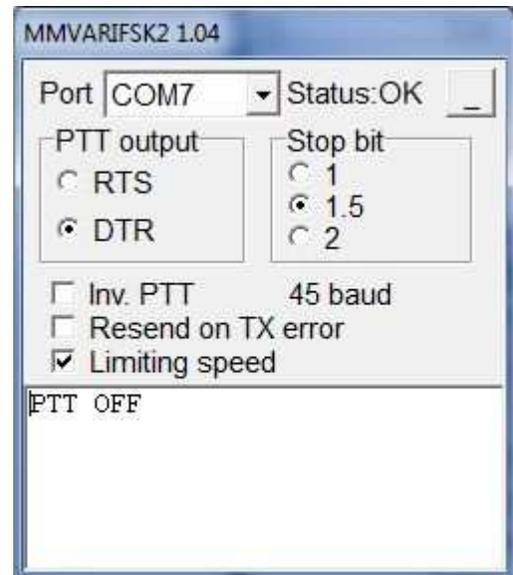
20. Set PTT output to RTS

21. Check Limiting Speed

22. Return the MMVARIFSK1 window to the Task Bar.

If your radio does not support Dual receive (SO2V) Operation, FSK configuration is complete.

23. Select DI-2 (Open the second DI if it is not already open)

24. Select **Interface | MMVARI** if MMVARI is not already the active interface

25. Select RTTY-L mode in MMVARI.

26. Select the MMVARIFSK2 window from the Windows Task Bar.

27. Set Port to the port you chose for 2nd FSK in Router.

28. Set PTT output to RTS

29. Check Limiting Speed

30. Return the MMVARIFSK2 window to the Task Bar.

MMVARIFSK2 1.04

Port COM7 ▾ Status:OK _

PTT output
○ RTS
● DTR

Stop bit
○ 1
● 1.5
○ 2

☐ Inv. PTT   45 baud
☐ Resend on TX error
☑ Limiting speed

PTT OFF

MMVARI setup with AFSK:

N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is for **AFSK RTTY** and PSK.

AFSK and PSK do not require the use of a digital port for each radio. Do not configure a Digital Port in N1MM Logger or a FSK Port in Router.
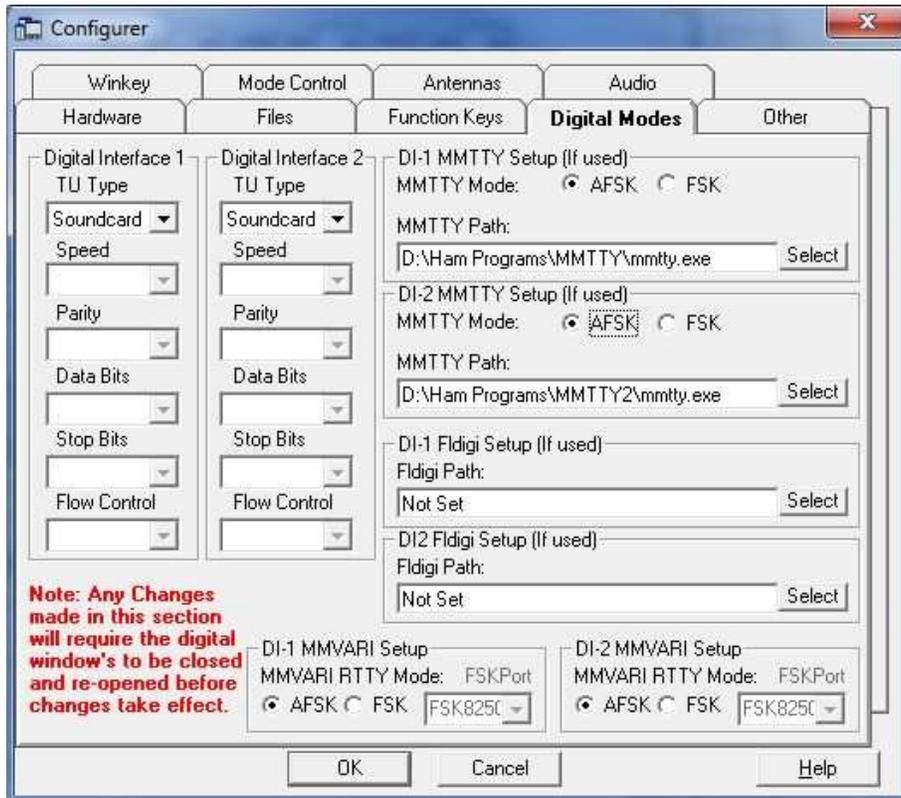

1. Select the **Digital Modes** tab in the N1MM Logger Configurer.

2. Set the TU Type to Soundcard

3. select AFSK as the MMVARI RTTY mode for both DI-1 and DI-2.

4. Open the **Mode Control** tab

5. Set the appropriate RTTY and PSK modes for each radio.

   Note: See the N1MM Logger Help files for the supported RTTY (AFSK) and PSK modes for your radios.

6. Set the method to determine the mode recorded in the log.

7. Save and Close the N1MM Configurer.
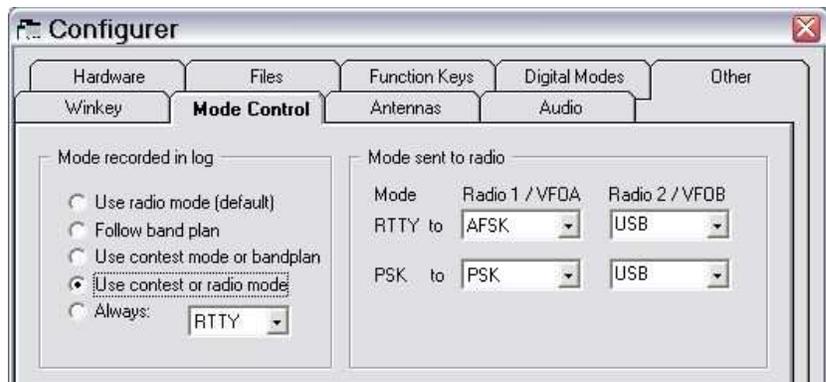
8. Activate the left Entry Window (Radio 1) and enter PSK.

9. Click **Setup | Settings.**   Select MMVARI as the Preferred RTTY Interface and Preferred PSK Interface.
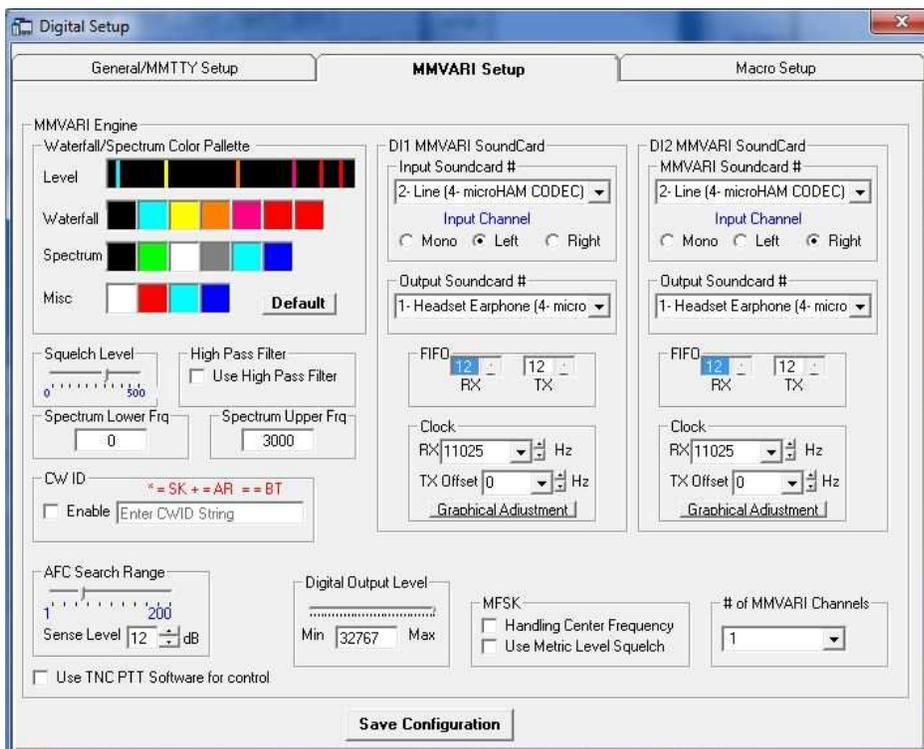
10. Select **MMVARI Setup.**

11. Set DI1 MMVARI Sound Card Input Soundcard # to "Line (microHAM CODEC)" and select the **Left** Input.

12. Set DI1 MMVARI Sound Card Output Soundcard # to "Headset Earphone (microHAM CODEC)".

13. Set DI2 MMVARI Sound Card Input Soundcard # to "Line (microHAM CODEC)" and select the **Right** input.

14. Set DI1 MMVARI Sound Card Output Soundcard # to "Headset Earphone (microHAM CODEC)"

15. Save the configuration.